UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 July 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *12/29/03 + 11/26/04*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by the User's Guide

to Math Works provided by Applicant's IDS filed on November 26, 2004 (referred as the

Guide).

Regarding claim 1, the Guide teaches a method for creating a mask isolating a region of

interest in an image and deleting information in said image peripheral to said region of interest,

comprising the steps of:

a) obtaining a digital first image containing said region of interest, said region of interest

represented by pixels having pixel values (see pages 11-4 to 11-5: specifying a regions of

interest);

b) defining a first closed curve forming a perimeter around said region of interest in said

first image (see page 14-348, 3rd paragraph: "*BW = roipoly(I) display...add a vertex*");

c) creating a second image comprising a plurality of pixels, said second image having a

boundary corresponding to at least a portion of said first image, wherein the first closed curve

around said region of interest in said first image is represented in said second image as a

matching second closed curve within said boundary in said second image (see page 14-348, 2nd

paragraph: "*BW = roipoly(I,c,r) return the regions of interest...and 1's inside*");

d) assigning all pixels in said second image on said boundary and peripheral to said

second closed curve with a first pixel value and assigning all pixels in said second image within

the region bounded by said second closed curve a second pixel value (see page 14-348, 2nd

paragraph: "*BW = roipoly(I,c,r) return the regions of interest...and 1's inside*". Note 0's and

1's), and

e) saving said second image with the pixel values assigned as in step (d) as a mask,

wherein application of said mask to said first image deletes areas peripheral to said region of

interest and leaves pixel values for said region of interest undisturbed (see pages 11-7 to 11-8

together with page 14-346).

Regarding claim 2, the Guide further teaches wherein step b) is performed by the steps of

displaying said first image on display of a general-purpose computer and defining said first

closed curve by user interaction with said general-purpose computer using user interface devices

provided by said general purpose computer (see description of "roipoly" in page 11-348 to page

11-349: note "Backspace", "Delete", "shift-click", "right-click", "double-click", "Return" in

page 11-348; and "mouse" in page 11-349. Also refer to page 11-4 to page 11-5).

Regarding claim 3, this claim is also rejected for the same reasons as set forth in claim 2

above.

Regarding claim 4, the Guide further teaches wherein said first image comprises an

image of a biological specimen (see page 14-343: note figures).

Regarding claim 5, the Guide teaches wherein said image comprises a magnified image

(see page 3-26 to page 3-27: note zooming).

Regarding claim 6, wherein said second image comprises a rectangular image and wherein the boundary of said rectangular image is dynamically varied substantially simultaneous with the defining of the first closed curve in said first image to thereby insure that said second image completely encompasses said first closed curve (see description of *roipoly* in page 14-348 to page 14-349).

Regarding claims 7-12, it is noted that these claims recite similar features that called for in claims 1-6. Therefore, claims 7-12 are also rejected for the same reasons as set forth in claims 1-6 above.

The advanced statements as applied to claims 1-12 above are incorporated. The Guide further teaches machine readable instruction (see MATLAB mentioned in page 3-26), workstation and processing unit (these features are inherently included in the Guide in order for MATLAB, mouse, zoom, delete, backspace,... to be functioned) as required by claim 13.

Conclusion

3.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Example of the same of invention of image processing is USPN 5,790,690 to Doi et al.

4.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy M. Dang whose telephone number is 571-272-7389. The examiner can normally be reached on Monday to Friday from 6:00AM to 2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

dmd
9/06

DUY M. DANG
PRIMARY EXAMINER